

U.S. National Advisory Committee
Independent Federal Advisors on the
North American Agreement on Environmental Cooperation

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The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Pruitt:

The National Advisory Committee (NAC) to the U.S. Representative to the North American Commission for Environmental Cooperation (CEC) held its 50th meeting in Washington, D.C. on April 26-27, 2018. This letter represents our full advice resulting from that meeting.

The advice sought by EPA pertains to the challenge of marine litter and the best management practices being employed by government, industry and others to address it. Jane Nishida, Principal Deputy Assistant Administrator for the Office of International and Tribal Affairs, updated members on recent EPA/CEC activities, the April 2018 Alt Rep meeting, the 2018 Council Session and matters pertaining to tribal affairs. Present during our first day of deliberations were representatives from SEMARNAT, Mexico's Environmental Ministry, and representatives from the CEC Secretariat in Montreal, Canada, who were in Washington for the Alt Rep meeting the previous day.

Principal Deputy Assistant Administrator Nishida explained that EPA's desire for advice about marine litter came from multiple engagements including the United Nations (UN) Environment Assembly resolution by Member States on preventing marine litter and plastics, the Group of Seven (G7) countries' commitment to take deliberate action to address marine litter and debris, and the current CEC project titled "Building Community Solutions for Marine Litter." NAC members appreciated the opportunity to provide advice to the EPA, recognizing that at this particular point in time, such advice might serve also to inform environmental activities internationally.

In support of our discussion, Robert S. Benson, Acting Chief, Partner Programs Branch, EPA Office of Water, reported on the domestic activities of EPA's Trash Free Waters (TFW) Program. We also heard from Ms. Carla Friedrich, Program Officer, UN Environment, North America Office, who described the UN Environment Programme (UNEP) and discussed the UN Environment's marine litter efforts.

Carlos Perez New York

Simone Sagovac Michigan

Ivonne Santiago Texas We received excellent briefings on private sector efforts from Stewart Harris,
Director for Marine and Environmental Stewardship for the American Chemistry Council's
Plastics Division, and Jennifer Ronk, North American Sustainability and Advocacy
Manager for the Dow Chemical Company's Packaging and Specialty Plastics Division. We
also learned about entrepreneurial efforts to develop alternatives to plastics from
Daniella D. Russo, CEO of Think Beyond Plastic.

Local government efforts were highlighted by Julie Lawson, Director of the D.C. Mayor's Office of the Clean City, who described the work her office is doing to reduce and prevent marine litter in the nation's capital.

The committee received updates on key activities at the CEC Secretariat from Executive Director Cesar Rafael Chavez who updated members on the active 2017–2018 operational plan cooperative projects and grants. We also received an update on Submissions on Enforcement Matters (SEM) and status of submissions from Robert Moyer, SEM Director, and a report on JPAC activities from Gustavo Alanis-Ortega, JPAC Chair.

The meeting was opened by a welcome from Federal Advisory Committee Management Division (FACMD) Director Monisha Harris, who provided an update on FACMD activities, including the role of EPA's advisory committees. The GAC deeply appreciates the excellent support provided by the FACMD and thanks Director Harris, NAC/GAC Designated Federal Officer Oscar Carrillo and all the FACMD staff for their support, before, during and after the meeting.

Sincerely,

Theresa A. Pardo, Ph.D., Chair National Advisory Committee

Theresa a Pardo

cc: Jane T. Nishida, Principal Deputy Assistant Administrator for the Office of International and Tribal Affairs

Monisha Harris, Director, Federal Advisory Committee Management Division (FACMD) Oscar Carrillo, Designated Federal Officer, FACMD, OARM Mark Kasman, Director, Office of Regional & Bilateral Affairs, OITA, EPA Luis Troche, Senior Advisor, North American Affairs, OITA, EPA

Gustavo Alanis-Ortega, Chair, Joint Public Advisory Committee

César Rafael Chávez, Executive Director, CEC

Members of the U.S. National and Governmental Advisory Committees

National Advisory Committee (NAC) to the U.S. Representative to the Commission for Environmental Cooperation (CEC)

Advice 2018-1 Charge Question:

Provide advice focused on best practices being implemented by state and local governments, private sector, academia, and local communities to:

- Prevent/reduce sources of debris and plastics from entering into waterways to become marine debris/litter;
- Innovative uses of alternative materials that are able to decay or compost reducing the impact on waterways and coastal ecosystems;
- Mitigate marine debris and plastics that has found its way into waterways and coastal areas; and
- Increase public awareness and action to address the problem of marine debris/plastics.

The National Advisory Committee (NAC) is providing recommendations in response to the 2018-1 Charge Question on Marine Litter. Our advice focuses not on specific case examples that might be considered "best" but rather on areas of focus, ways of working, and characteristics that might make an initiative "best".

To begin, the NAC recommends a review of the NAC Advice 2016-1 (Meeting – November 16-17, 2016) (See Attachment # 1) which provide a robust and still very relevant set of recommendations regarding actions related to mitigating marine litter. Those recommendations closely align with a number of the ideas which emerged from the April 2018 meeting. The categories of recommendations from the Advice 2016-1 letter are provided below as context, followed by the new recommendations.

Categories of Recommendations from Advice 2016-1 below:

- 1. Positioning is Key
- 2. Partnerships are Key
- 3. Build Deep Understanding of the Sources of Marine Litter
- 4. Surface the Facts about which Actions Create what Value in which Contexts
- 5. Enable the Necessary Infrastructure to Manage the Sources
- 6. Build Awareness: Simplify, Customize and Amplify the Message

A Portfolio Approach

The NAC recommends a portfolio approach to Marine Litter initiatives, acknowledging that no single way of intervening, legislating or acting will address the problem. Further, NAC recommends a portfolio that acknowledges the value of best practice models but that address context as part of the implementation of selected practices; different places have different conditions with respect to waste management and will respond to different strategies at different points in time. A number of discussions focused on the waste lifecycle and encouraged a consideration of a life cycle frame of reference for a portfolio of initiatives, in particular, considering the waste lifecycle within the wide variety of contexts

across NA. Further, a portfolio that address the full spectrum from infrastructure to creating incentives and economic opportunities to awareness raising to behavioral changes is recommended.

Leverage Existing Investments in Best Practices Collection Development

Efforts to identify and collect best practice in addressing various aspects of the waste lifecycle with respect to marine litter are being undertaken. In his presentation Robert Benson, Acting Chief, Partner Programs Branch, EPA Office of Water, noted that the EPA Trash Free Waters Program is in the process of creating a compendium of 50 or so cases. In preparation for this meeting, the Institute for Tribal Environmental Professionals, (ITEP), at Northern Arizona University, compiled and vetted a set of practices contributing to marine litter prevention from across the tribal communities (See Attachment # 2). The NAC recommends further investment in and use of such systematic, and thorough compendiums of best practices. Further, the NAC recommends that uses of such compendiums take into account the importance of context in determining the extent to which and under what conditions, a "best practice" has utility beyond its origin. Seek and document best practices in the following:

- 1. Incentivizing recycling and scaling such programs
- 2. What funding mechanisms can be put in place?
- 3. Understanding the Behavior of Polluters
- 4. Engaging with Existing Organizations
- 5. Mitigating Existing Marine Litter
- 6. Governance to implement best practice programs, policies and activities
- 7. Curriculum to build understanding of the waste lifecycle and local context

Create a Set of Best Practices for Adopting Best Practices in New Contexts

A number of communities globally have created practices that might be considered "best". Understanding the initiatives requires one type of information. Understanding what that community had to do to be successful in implementing that policy, practice of behavior change requires another kind of information. For example, in some places bans on plastic bags are celebrated, in others they are considered an intrusion and litigation ensues.

The NAC recommends that best practice reviews include more in-depth knowledge and guidance on "how to" transfer a best practices to a new context and increase the likelihood of adoption and use. Attention for example, to governance models and local sustainability strategies are considered key to successful adoption.

Address the Lack of Solid Waste Infrastructure and Community Resources Challenges

NAC discussed a preference toward a focus on what they consider to be THE problem, a lack of solid waste infrastructure. NAC noted the existence of many communities across the three countries with no solid waste infrastructure. This is generally considered to be a developing country problem, but this is not the case. Many tribes in Alaska, for example, are in the developing stage with respect to solid waste infrastructure. NAC members recommend a balance between efforts to mitigate the impact of marine litter with a focus on preventing marine litter through investments in missing infrastructure.

Of particular concern to tribal communities, and conceivably to the Trash Free Waters Program, are changes to the General Assistance Program (GAP) Funding. New criteria for GAP funding will remove the option of using such funding for waste removal. Currently more than 230 tribal communities in Alaska use GAP funding to fund the removal of solid waste. No other resources are available to these communities to fund this expense and as a consequence they are now dealing with a growing trash issue. Alternative sources of funds might include grant funds, but typically such communities do not have the resources needed to produce relevant grant proposals.

The NAC recommends a focus on the development of ubiquitous solid waste management infrastructure in the three countries. Seek best practices in the developing world where municipalities have successfully developed solid waste management infrastructure and programs and explore the utility of such cases. Cases from the developing world may be more relevant to the communities across the three countries that are lacking such infrastructure and do not have resources in their communities to address the problem. The lack of solid waste infrastructure in parts of Asia is recognized globally as a major contributor to the global marine litter problem. Innovations in joint strategies or investments may be required. Further, exploring the role that international organizations can play in raising awareness of the need for a global strategy including monetary components to create the missing waste management infrastructure in those places where it is needed most, is important. Are micro-enterprise models useful for creating sustainable local waste management programs?

Present the CEC as a Best Practice Model for International Cooperation

While many investments inside the three countries of the CEC are critical to addressing Marine Litter, we are all effected by the activities of actors and institutions outside of the three countries. Unfortunately, it is often unclear who must act. In other cases, it is clear that no one country has responsibility, for example, the Gyres, and therefore new kinds of collaboration and share responsibility models are required.

The NAC recommends investments in a "best practice" case focused on the CEC and how the three countries have created an international cooperation model that is creating value at the sub national level, the national level and across the three countries. The mission, governance model, and community engagement strategies are unique and could provide others with a model to follow in organizing their own local or regional efforts. This recommendation could also include the consideration of a CEC "incident team" to be deployed in the context of an event to assist countries in their marine litter mitigation efforts.

Increase Availability of and Access to Impact Data on Litter-related Public Policies

Many communities have benefited from policies which ban or limit the use of items such as plastic bags and have created legislation such as "bottle bills" to reduce litter. These programs typically involve some level of consumer inconvenience, or at the very least, behavior change. As a consequence they can be seen as burdensome and intrusive. However, many do create value, in particular, direct value to citizens, and as a consequence might be considered "best practice" policies.

The NAC recommends investment in producing impact analysis and using such resources to inform policy makers and citizens across the three countries of the potential of such policies. Such communications needs to be culturally appropriate and accessible to be effective.

Identify and Amplify Industrial Innovations that Are Reducing the Production of Marine Litter
The NAC recommends identifying and increasing awareness of the public private partnerships that have produced innovations that are reducing the production of solid waste and conceivably, marine litter, such as the smaller bottle cap.

Target the Adoption of Best Practices in Prioritized Areas

The CEC portfolio includes initiatives focused on prioritized areas such as the Baja and Alaska initiatives presented during the April 2018 meeting by César Rafael Chávez, Executive Director, CEC. Such initiatives have recognized value for those selected areas and can be used to both leverage existing and relevant best practices and to create new best practices.

The NAC recommends a focus on the adoption of best practices to areas that are most vulnerable, such as Artic waters, marine reserves, coral reefs and selected spawning grounds. In those areas such as official marine reserves, explore the use of the law to force remedial action. A second area of focus could be on the areas within the three countries that are contributing the most to marine litter; "getting to the source".

Reinvigorate Public Service Announcements and Make Them Culturally Appropriate

The April 2016 Advice Letter from NAC provided a set of ideas related to social media campaigns and other strategies for Public Service Announcements related to marine litter.

The NAC recommend reviewing these recommendations in particular and seeking best practices in public policy campaigns. Some ideas provided by the members include partnership with business such as McDonalds whose business model includes a reliance on single-use products. Noting the "celebrity conscious" society, NAC encourages consideration of the use of celebrities in getting the messages out, in particular, local celebrities who can provide culturally appropriate and context specific messages.

Consider Revisions to Statutes to Control Litter that Leads to Marine Pollution

The NAC recommends the EPA consider revisions to existing statutes that might help promote strategies and regulations to control litter that leads to marine pollution. A majority of marine litter arises from international sources and will require multilateral efforts to control it effectively, but the United States can take independent steps to help control sources of marine pollution within its jurisdiction. U.S. environmental statutes, however, do not clearly address marine litter or provide a ready platform to regulate it. For example, the Resource Conservation Recovery Act (RCRA) imposes relatively limited management requirements on generators and handlers of nonhazardous domestic waste (such as municipal solid waste) that might contribute to the problem, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) does not typically apply to the remediation of hazardous substances suspended or flowing through unconfined water columns. EPA should explore potential amendments to RCRA, CERCLA, the federal Clean Water Act (including the application of Total Maximum Daily Load standards to U.S. marine waters), and the National Monuments Act. This assessment should also examine existing regulations under each of these statutes.

ATTACHMENT # 1 to EPA NAC Advice 2018-1

National Advisory Committee (NAC)

To the U.S. Representative to the

Commission for Environmental Cooperation (CEC)

Advice 2016-1 (Meeting – November 16-17, 2016)

Charge Questions: Marine Litter

The November 2016 Charge Questions to the NAC seek advice "... on potential directions on marine litter and food waste as future areas of work in the CEC's Operational Plan, and provide advice on implementing a path forward on tangible initiatives for youth engagement, including indigenous youth, on the areas of marine litter and food waste."

The advice provided by the NAC in response to the Charge Questions is organized into four sections: 1. Marine Litter, 2. Food Waste, 3. Additional Advice, and 4. Requests. Advice related to tangible initiatives for youth engagement, including indigenous youth, is integrated into these sections as appropriate.

Marine Litter

Regarding potential directions on *Marine Litter* as a future area of work in the CEC Operational Plan, the NAC recommends that the CEC consider a set of targeted activities focused on pollution prevention and legacy cleanup. The activities reflect two important themes that ran throughout these discussions; 1. Knowledge of source matters, and 2. Actions must be locally meaningful and specific to context, while also helping stakeholders see and understand the link between local and global issues and actions. Throughout these recommendations the NAC further recommends a reshaping of the narrative to be more positive; enabling stakeholders to envision a different future. This, they consider, is key to incentivizing engagement and action. The NAC recommendations reflect these themes and are relevant to both focus areas.

7. Positioning is Key

- Economics is key to the solution.
 - The NAC recommends actions which more directly and clearly connect economics to the health of communities, and in particular, marine litter. Use new understanding of sources and impacts of marine litter (see recommendation #3 below) to shape policies that incentivize relevant stakeholders (including private industry, local, state, and national governments, and nongovernmental organizations) to explore the potential relationship between pollution control, legacy cleanup, and value creation. Find the obstacles to efforts to create value out of waste and incentivize the elimination of those obstacles.
- Water quality and watershed management are salient public issues.
 - The NAC recommends actions which more directly link marine litter to salient issues of public interest and concern such as water quality and watershed management. Where marine litter is a threat to safe drinking water, such as in El Paso Texas, engage stakeholders to develop and implement effective solutions.

8. Partnerships are Key

• Build the expectation that partnerships are essential in all areas of pollution control and legacy cleanup.

- Recognize that partnerships are central to the full range of types of activities: research, policy, resourcing, and awareness building, among others.
- Engage in partnerships along a variety of dimensions:
 - With border countries to focus on elimination at the source, where a significant source has been identified. For example, partnering with Mexico on appropriate management of old tires to reduce impacts on water quality.
 - With industry partners at the local, state, federal and international level that have a stake in the issue of marine debris.
 - With state and local governments to incentive and/or remove obstacles to value creation from waste and make other improvements to waste management, particularly in watersheds identified as the most significant sources of marine debris.

9. Build Deep Understanding of the Sources of Marine Litter

- Develop and conduct a bi-annual research project to identify the biggest sources of marine litter.
- Use the results to focus new (research, academic, and community awareness) programs and policies on the sources of marine litter.
- Use the project to make the link between marine litter source and impact on areas of key interest such as water quality and human and animal health.
- Use the baseline data to track the impact of new programs and actions in controlling pollution over time.

10. Surface the Facts about which Actions Create what Value in which Contexts

- Increase capability of communities and other key stakeholders to make strategic choices about which actions generate the most value in specific contexts by creating new understanding of the most cost-effective high impact programs.
 - Develop and conduct a bi-annual research project designed to surface the facts about the value generating effectiveness of the range of actions and activities designed to control marine litter and to cleanup legacy sites.
 - Ensure that policy makers and other key decision makers can determine costeffectiveness of alternative strategies so that high impact leverage points can be understood and exercised.
- Ensure that citizens and other key stakeholders have readily accessible and usable data about alternative strategies so they can make informed choices. For example, where are youth-based awareness programs most effective in increasing engagement levels in legacy cleanup activities? For example, how can such data be made available on open data portals?
- Examine models in use in other areas and explore the application of lessons learned to pollution control and legacy cleanup of marine litter. Are there lessons from these models that could contribute to new initiatives or actions focused on the elimination of risk of marine litter at the source?

11. Enable the Necessary Infrastructure to Manage the Sources

• Use the newly available data about the causes and sources of food waste and the relative impact of programs to support decision making about where new or enhanced infrastructure is needed to support the reduction of food waste. Such research will help inform questions about obstacles to food waste reduction and food security. For example, where will composting programs have the greatest impact? Where will increased access to fresh food make a difference in food waste?

12. Build Awareness: Simplify, Customize and Amplify the Message

- The NAC recommends a variety of actions that EPA could take, consistent with its existing authorities and working in partnership with other stakeholders at the state and local level and in the private sector, focused on simplifying the message, customizing it to context and using amplifiers to get the message out and build awareness of marine litter and the costs in terms of public value at all levels, local, state, federal and global.
- The NAC recommends the use of amplifiers that make messages more accessible. For example, putting messages on outlets frequented by target populations, and not just on PBS. Using new visualizations techniques that reduce the threshold for access to the insights generated through data analysis.
- The NAC recommends the use of source data to engage youth in the development of programs that build new understanding about where a community's waste ends up.
 - o For example, a "hackathon" could use data from the bi-annual research project to build visualizations that provide the clearest and most accessible insight about the impact of local actions on marine litter. Prize winning visualizations could form the basis for a youth documentary or a public service announcement program.
 - o For example, a community-based competition could incentivize the creation of multimedia displays that simulate the impact of litter on local watersheds over time.

ATTACHMENT # 2 to EPA NAC Advice 2018-1

DATE: April 24, 2018

TO: Members of EPA NAC and GAC Committees

FROM: Ann Marie Chischilly, NAC Member, Institute for Tribal Environmental

Professionals (ITEP) at Northern Arizona University (NAU)

RE: Information: Tribal Perspective on Marine Litter Prevention

The Institute for Tribal Environmental Professionals (ITEP) at Northern Arizona University (NAU) submits the following information on Marine Litter Prevention from the tribal perspective. This memo was completed as a direct response to the email sent by EPA on March 19, 2018, with multiple documents. The documents were reviewed and responded to below. Several ITEP staff assisted in developing the following information for the Committees to consider regarding Marine Litter Prevention on tribal lands.

Building community solutions for Marine Litter

I. This project aims to address the lack of intergovernmental coordination that could effectively prevent and reduce land-based sources of litter from entering the marine environment through a community-driven, stakeholder-based, solutions-focused approach that builds capacity.

Key steps:

- 1. Describe the marine litter issue at pilot sites in communities with shared border watersheds
- 2. Identify and implement solutions to address local challenges
- 3. Communicate results and provide recommendations to decision makers
- II. Opportunities for including (Traditional Ecological Knowledge) TEK in the project:
 - 1. Goals of the Marine Litter project
 - I. Watersheds that involve multiple stakeholders (examples they give... St. Lawrence river/Great Lakes watershed, Salish Sea, Tijuana river watershed, Rio Grande/Rio Bravo watershed/Gulf of Mexico)
 - ii. "TEK can inform a greater understanding of watershed characteristics (water flows, flora/fauna, history of pollution, etc) that are part of implementing solutions"
 - iii. Creating opportunities for youth engagement is also a goal of the project
 - 2. Goals of the Commission for Environmental Cooperation (the organization)
 - i. Roster of experts on TEK

http://cec.org/about-us/jpac/tek-members

5 Indigenous/ TEK practitioners each from Canada, US, Mexico

ii. North American TEK Atlas

An interactive mapping tool to research, analyze, and manage environmental issues in Canada, Mexico, and the US. This project is still being developed.

iii. Tribal rep:

NAC member: Kelly Wright with Shoshone Bannock Nation at Fort Hall, ID. EPA Tribal offices

III. Coastal Tribes involved in marine protection issues

- 1. Hawk Rosales: Ex. Director Inter-Tribal Sinkyone Wilderness Council (CA)
 One of his main concerns was about the inclusion of TEK throughout decision process
- 2. There are Tribal members in the West Coast Regional Planning Body with 13 Tribes Established in 2015, the West Coast Regional Planning Body (RPB) is a partnership between federally-recognized tribes, federal government agencies, and the states of Washington, Oregon and California focused on enhanced coordination and communication around planning and management of current and emerging ocean uses, as well as information and data-sharing on the West Coast. http://www.westcoastmarineplanning.org/partners/
- 3. Tolowa Dee-ni Nation (N CA): Megan Rocha project manager
 The Nation has a whole marine planning department and hosted the Indigenous
 Ocean Science Forum in 2013. http://www.tolowa-nsn.gov/tcmsp/
- 4. Makah Tribe (WA)

Successful marine debris removal/beach cleanup on the remote Washington Coast led by Surfrider Foundation's Olympic Peninsula Chapter in collaboration with U.S. Coast Guard, Makah Tribe and Olympic Coast National Marine Sanctuary in 2015.

The Makah Indian Tribe is working to remove three abandoned and derelict vessels from the Neah Bay Marina. (2017)

https://blog.marinedebris.noaa.gov/marine-debris-work-west-coast-native-communities

5. Quinault Marine Resources Program (WA)

The Nature Conservancy, the Quinault Marine Resources Program, and the NOAA Marine Debris Program have partnered to remove derelict crab pots from tribal waters off the Quinault coast and to develop a sustainable reporting and annual recovery program for lost pots as part of the fight against marine debris. http://qlandandwater.org/departments/fisheries/marine-resources/ https://marinedebris.noaa.gov/pacific-northwest

6. Coquille Tribe (OR)

2017 Engage students in service learning projects to prevent and remove marine debris. Partners: Oregon State Parks, Surfrider Foundation, Coquille Tribe, SOLVE, CoastWatch, CTCLUSI.

7. Meagan Flier: Confederated Tribes of Grand Ronde (OR)

Participant at Oregon Marine Debris Action Plan 2017

Participant at West Coast Regional Planning Body

8. Stillaguamish Tribe (WA)

Stillaguamish Tribe of Indians led a project to survey for and remove derelict crab pots from Port Susan Bay in the Puget Sound. Beginning in 2003, Tribe divers identified and removed over 500 pots from the Bay.

9. Wiyot Tribe (CA)

The Wiyot Tribe, which led a major marine debris removal effort on Indian Island in Humboldt Bay, Northern California.

https://blog.marinedebris.noaa.gov/marine-debris-work-west-coast-native-communities

10. The Confederated Tribes of Coos, Lower Umpqua and Siuslaw (OR)

The Nations participated in the creation of the Oregon Marine Debris Action Plan (2017), and the MDP hopes to see significant tribal participation in the creation of

a similar action plan for Washington. https://blog.marinedebris.noaa.gov/marinedebris-work-west-coast-native-communities

11. Native villages of Shishmaref, Wales, and Kotzbue (Inupiaq/Northern Yup'ik coastal villages) & Yakutat Tlingit Tribal Youth

Participated in marine debris removal in 4 AK national park service beaches (summer 2015). With multiple partners this NPS project removed marine debris from 5 park beaches known to have high to moderate levels of marine debris accumulation.

https://www.nps.gov/articles/aps-15-1-10.htm